

## A VIRGO HIGH-RESOLUTION H $\alpha$ KINEMATICAL SURVEY

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### 1 Abstract

We have completed a survey of 30 Virgo cluster galaxies in the H $\alpha$  emission-line using Fabry-Perot interferometry. The goal of the survey is to obtain a high angular resolution sample of velocity fields of spirals and to study the environmental effects on their kinematics and dynamics.

### 2 Global result and scientific goals

We present here an overall view of the 30 velocity fields in the Virgo cluster (Fig. 1). The whole data mining procedure and FP-H $\alpha$  catalog will be fully described in Chemin et al. (2004, to be submitted). Previous results for a sub-sample of 9 galaxies were presented in Chemin (2003) and for the strongly perturbed spiral galaxy NGC 4438 in Chemin et al. (2004, submitted). Forthcoming papers will detail the analyses and results for the whole sample or for individual galaxies: comparison with the HI and CO (Cayatte et al. 1990, Sofue et al. 2003) and long-slit (Rubin et al. 1999) Virgo catalogs, tilted-ring models of velocity fields, rotation curves, residual velocity fields, determination of bar pattern-speeds for barred galaxies, dark matter distribution and also comparison with isolated galaxies (Garrido et al. 2002). The high-resolution data should also be used to compare with results from numerical simulations of ram-pressure stripping and/or tidal interactions (Vollmer et al. 2001).

### References

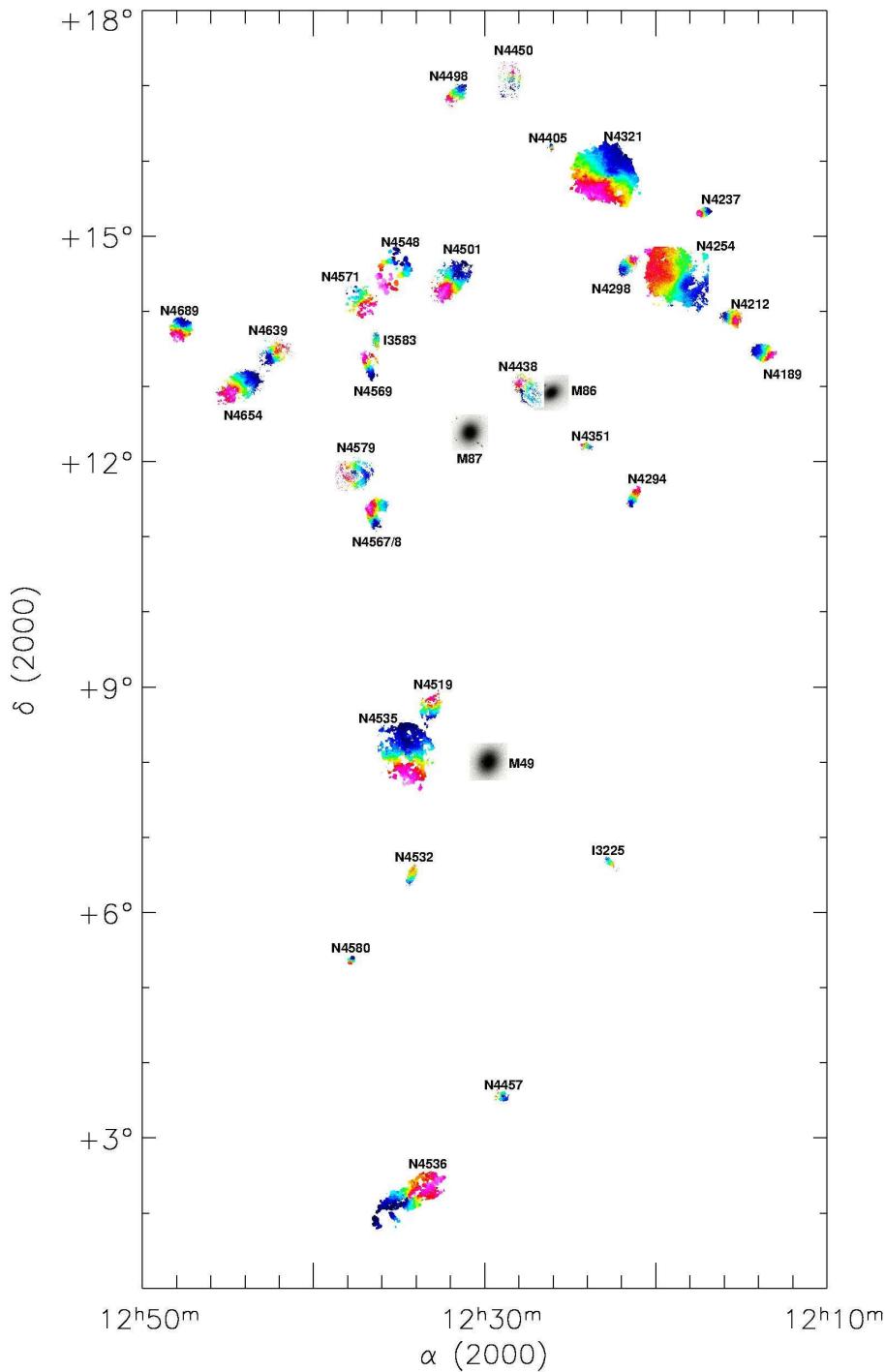
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**Fig. 1.** A view of the Virgo cluster galaxy velocity fields map. For clarity reasons, the angular scale of each of the 30 galaxies has been enlarged by a factor of  $\sim 9.5$  w.r.t. the real scale. The locations of the 3 large ellipticals M49, M86 and M87 are shown using broad-band optical images. The colour scale is blue-darker shades (red-lighter shades) for the approaching (receding respectively) side of galaxies. The velocity range of each galaxy will be presented in Chemin et al. (in prep.).